

Application of the optical theorem to the analysis of lasing thresholds in microlasers with ring-like active regions

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Abstract

© 2016 IEEE. We study the lasing modes of microlasers with ring-like active regions. We reduce the considered eigenvalue problems to transcendental equations and solve them numerically. The comparison of the spectral characteristics, i.e. the lasing frequencies and the associated values of threshold material gain, of these resonators with previously obtained solutions for fully active resonators has led to the efficient use of the optical theorem.

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